

From glowbugs@theporch.com Mon Feb 24 19:01:57 1997  
Return-Path: <glowbugs@theporch.com>  
Received: from uro (localhost.theporch.com [127.0.0.1])  
by uro.theporch.com (8.8.5/AUX-3.1.1)  
with SMTP id TAA28769;  
Mon, 24 Feb 1997 19:00:59 -0600 (CST)  
Date: Mon, 24 Feb 1997 19:00:59 -0600 (CST)  
Message-Id: <199702250100.TAA28769@uro.theporch.com>  
Errors-To: ws4s@infoave.net  
Reply-To: glowbugs@theporch.com  
Originator: glowbugs@theporch.com  
Sender: glowbugs@theporch.com  
Precedence: bulk  
From: glowbugs@theporch.com  
To: Multiple recipients of list <glowbugs@theporch.com>  
Subject: GLOWBUGS digest 456  
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

#### GLOWBUGS Digest 456

Topics covered in this issue include:

- 1) Bad URL for the Visio symbols  
by jefffd@coriolis.com (Jeff Duntemann)
- 2) QRP Funzies over the Weekend.....  
by rdkeys@csemail.cropsci.ncsu.edu
- 3) Re: UY224 for Hartley, maybe?  
by larrys@fmis02.nsc.com (Larry Szendrei, NSME CMOS7 BEOL integration)
- 4) WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
by rdkeys@csemail.cropsci.ncsu.edu
- 5) UY-224 as glowbug of some sort..... thoughts.....  
by rdkeys@csemail.cropsci.ncsu.edu
- 6) Re: WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
by Conard Murray <ws4s@InfoAve.Net>
- 7) Re: WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
by rdkeys@csemail.cropsci.ncsu.edu
- 8) FWD: R-388/51J3 AF Distortion  
by bry@mnsinc.com.NO\_SPAM (Brian Carling AF4K/G3XLQ)
- 9) Replacement relay needed  
by "Steve, N2MNN" <n2mnn@openix.com>

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Date: Mon, 24 Feb 1997 08:43:36 -0700  
From: jefffd@coriolis.com (Jeff Duntemann)  
To: glowbugs@theporch.com

Subject: Bad URL for the Visio symbols

Message-ID: <3.0.32.19970224083522.009e7a70@165.247.88.2>

Hi gang--

Ol' Lightning Fingers here pounded in a bad URL for my FTP site, as several individuals duly pointed out. My FTP site (and the full, CORRECT URL for the Visio symbols) is:

ftp://ftp.coriolis.com/pub/Shareware/vistube.zip

For those who went to fetch the symbols from the bad URL, I apologize. I feel like I left out a bias resistor somewhere...a guy in this business as long as I've been should know better.

--73--

--Jeff Duntemann KG7JF  
Scottsdale, Arizona

-----  
Date: Mon, 24 Feb 1997 13:25:54 -0500 (EST)

From: rdkeys@csemail.cropsci.ncsu.edu

To: bry@mnsinc.com

Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com,

Subject: QRP Funzies over the Weekend.....

Message-ID: <9702241825.AA166264@csemail.cropsci.ncsu.edu>

> Is anyone else here?

Yeah, Ole Boatanchor Bob were about the 3579 QRG all weekend with some o' them thar JANuine Glowbugge Firebottle thingies called Mrs. Grandma Hartley (born of a 1925 QST) and her kid regen sister Twinnie Triode (born of a 1925 QST also) at 3 wattes de ether input and a fine T8.95 signal. Worked BA/GB/QRP folken all over the eastie coastie from Thursday through Sunday, daytime and in the wee small hours. All youse young squirts wats got them thar non-glowing thingies ye calls sandy state or such, dunno wat ye be a'missin' with the slight tinge o' MG bearing oil and brush ozone waftin' across the shack, the relays clatterin' in time to de ol' Blue Racer, an jus' a slight crackle o' hiss as the throttle condenser were set to the ragged edge o' regeneration. Ahh, that be QRP wat separates the OT Pfartes like me from da young squirts.

> What have you been up to with the QRP gear everyone??

Having a great time with Grandma Hartley on 80M, Henrietta Hartley on

200 Meteres an' down, altho me has yet ta get a classy Lassie Hartley up on that funny short wave o' 40 Meteres. Twinnie Triode plys them thar short wave ethers, well, tho. She sits on the ragged edge o' regeneration wat puts them thar Heterodyne receivers made from sandstuff wats lost its glow ta shame (heterodyne receivers be wat OT's wats been around awhile calls them thar misnamed DirectoConversiono thingies ye sometimes plays wid). Ol' Twinnie Triode can rustle more selectivity whilst sittin' on the ragged edge o' regeneration than all the DC receivers a'put together. Nuttin' new under de ol' radio sun, it seems.

> If anyone is interested in building your own QRP radios, I have a  
> bunch of projects available on-line at:  
> <http://www.mnsinc.com/bry/hamfiles.htm>  
> Also a lot of QRP info and links at:  
> <http://www.mnsinc.com/bry/hamlynx/hamqrp.htm>  
> ENJOY! 72 de AF4K, Bry

Me does enjoy it most heartily!

Did work John Brewer/WB5A0U on his brand new single tuber at about 4 wattes.  
Did work ol' Brack/W4JRU on his HB 6DQ6 thingie an' regen 2-tuber, in broad daylight in the afternoon on 80M, for over an hour at 250 miles DX!  
Did work several QRP folks with this an' that sort of rig.  
Did work a bunch o' BA/GB folks.  
Did have a GREAT weekend plying the ol' 80M ethers. I tried 160, but the fonestuff messed things up.

One minor complaint me gots is that some o' the QRP folken are a bit timid ta let the lead outta their keys, an' put the pedal to the metal. Just because it be QRP is no reason to QRS unless the other end has trouble hearing you. If ye gets a 559 or better report, skedaddle the ol' sending iron along, OK? Armchair QRP cpy at QRQ is musick ta de ol' noggin. That way ye gets more dits an' dahs between the statick crashes!

Hope to hear more o' you folks, an' especially up band in the 3600 range an' down in the 3520 range, too. The usual QRG be 3579R545kcs after dark.

72/73/ZUT DE NA4G/Bob UP

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Date: Mon, 24 Feb 1997 12:39:08 -0500  
From: larrys@fmis02.nsc.com (Larry Szendrei, NSME CMOS7 BEOL integration)  
To: wallace@world.std.com, glowbugs@theporch.com  
Subject: Re: UY224 for Hartley, maybe?  
Message-ID: <97022412390851@fmis02.nsc.com>

Hi, Andy...

You had asked:

>Got a Cunningham UY-224 tube at an antique radio meet today, for a  
>princely sum of \$2. Sold on 11/11/32 according to the sticker. Seller  
>told me it was good....

>

>If so, can this plate-cap equipped tube be grafted into some sort of  
>Hartley peanut-whistle? I've been archiving all the glowbug talk for  
>some time but the number didn't ring a bell -- but for the price of a  
>Big Mac I thought I would take a chance. <grin>

Maybe - but don't expect much power out! The 224 isn't a power tube, it's a "small signal" sharp-cutoff tetrode (I think the 1st tetrode ever commercialized, if I'm not mistaken). It was used as an RF amplifier or plate detector in TRF receivers of the period: kind of a daddy to the type 57, granddaddy to a 6J7, or great-granddaddy to a 6BA6!!! If you're going to use it in a Hartley oscillator, think of it as a VFO to drive another stage - unless you want to do milliwatt QRP work. You'll have to be careful you don't operate in the "negative screen current" region, which is possible in tetrodes (which lack a suppressor grid. There was an oscillator circuit (Dynatron??) that made use of this exact characteristic, but I'm fuzzy on the details.

BTW, the cap on the top isn't a plate cap - it connects to the control grid. The plate connection is on the base.

73 and GL,  
Larry NE1S  
(larrys@fmis02.nsc.com)

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Date: Mon, 24 Feb 1997 14:45:52 -0500 (EST)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: ws4s@InfoAve.Net (Conard Murray)  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
Message-ID: <9702241945.AA166473@csemail.cropsci.ncsu.edu>

Our illustrious Glowbug listowner was heard and QSO's twice this weekend from a portable QTH atop a mountain in Tennessee, using a TV tower for support (mean sized glowbugging device there Conard). Nice to rattle an' bang with you there OM. Grandma Hartley was up to speed and the ol Twinnie Triode was on the ragged edge of regeneration. FB OM, but you need to try a Glowebugge, next time, for use as a marker beacon atop the mountain there.....(:+}}.....

73/ZUT DE NA4G/Bob UP

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Date: Mon, 24 Feb 1997 16:28:30 -0500 (EST)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: UY-224 as glowbug of some sort..... thoughts.....  
Message-ID: <9702242128.AA166725@csemail.cropsci.ncsu.edu>

The UY-224 (the type '24 tube) would be good for several glowbugging style devices.

Filament: 2.5V AC/DC Indirectly heated cathode (tremendous reserve emission)

Plate Voltage: 250 is a good max although 200 is probably better these days

Screen Voltage: 150 is a good max although 100 is probably better these days

Base: 5 pin

1. Electron Coupled Oscillator --- works great here with output of about 1 watt.
2. Regenerative Detector --- works great here with DC filament power (AC can/will hum very slightly).
3. RF Amplifier (Receiving) --- works great here in the usual RF amplifier circuit since time began.
4. Heterodyne Frequency Meter --- (AKA Growler) works very very very well as the first generation BC-221 style frequency meter using the ECO oscillator. See the 1930-1935 ARRL handbooks and QST's for example freq meter circuits.

Out of all three, I would opt to use it in a regenerative detector with a UY-227 as the audio stage, coupled with a choke of 10-30 henries and a coupling capacitor of 0.1 ufd. About 150 volts regulated on the plate and a screen dropping resistor network to ground for the screen voltage. Use a standard ECO or a Tickler feedback circuit. I would run battery filament power and battery plate power for quietest operation, although the tube was designed from the start as an AC filament tube. It seems that Bill Orr put out such a rehashed circuit in a 70's era CQ mag and there was a companion TNT rig around the same time. I ran across the articles this weekend while restructuring my library. Good

basic glowbug designs.

The second use would be in the freq meter (I have a Genrad freq meter in the wooden box based on this tube and it works well).

It will make a great VFO in the early 30's style or a pair of them will make a great PP VFO from about 1933 in QST Hints and Kinks columns.

73/ZUT DE NA4G/Bob UP

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Date: Mon, 24 Feb 1997 14:30:43 -0600  
From: Conard Murray <ws4s@InfoAve.Net>  
To: rdkeys@csemail.cropsci.ncsu.edu  
Cc: glowbugs@theporch.com  
Subject: Re: WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
Message-ID: <2.2.32.19970224203043.0074d40c@infoave.net>

Hi Bob and the group,  
OK OK, so I was caught running a sandbox, but the tuner was solid BA. I made a balanced tuner from a couple of BC-610 coils just for this event. I must admit I have fallen into the evil clutches of the qrp-1 crowd over on the lehigh.edu server. I was playing winter field day with them and had a blast. These guys are up to something all the time. While we were up there I was able to work several EU stations on 40 and 80 using from 2 to 10 watts output power into a center fed zepp antenna. I even heard some traffic on 500 KHz from a shore station signing VAU. Anyone know who/where that is? I also heard a ship on 600M sending a telegram from the ship's master regarding harboring in a port in Alaska so I am assuming the ship was in the Pacific somewhere. I never heard it give a callsign when he signed off though. Also heard were several heterodynes from EU MW BC stations, a Californian on 1630 and a couple of crazy TIS-type stations on 1640 and 1680 telling me about all the arrival and departure terminals at the DFW airport. I think conditions were good. I also had another ham (codeless tech) with me who is working on his code speed. He had fun too and got on the ether and worked some novices on 80 meters until the sun came up. If we joined in their parties with our glowbug stuff we could really impress some folks and even make a few converts. From what I read those guys will try any new thing that comes out in a kit anyway. I guess I need to brew up a small portable rig for such events.

73 all,  
Conard WS4S

.....  
. Conard Murray WS4S Glowbugs listowner .  
. 217 Dyer Avenue ws4s@infoave.net .

. Cookeville, TN 38501 615-526-4093 .  
. <>< Wise men still seek Him ><> .  
. QRP-L # 993 .  
.-----.

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Date: Mon, 24 Feb 1997 17:43:26 -0500 (EST)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: ws4s@InfoAve.Net (Conard Murray)  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: WS4S Heard from a Mountaintop in Tennessee (Davy Crockett?)  
Message-ID: <9702242243.AA166925@csemail.cropsci.ncsu.edu>

>  
> Hi Bob and the group,  
> OK OK, so I was caught running a sandbox, but the tuner was solid BA. I made  
> a balanced tuner from a couple of BC-610 coils just for this event.

No problem..... occasional fallings into the evil klutches of non-glowing  
devices is gonna happen ..... (:+{f{.....

> I must admit I have fallen into the evil clutches of the qrp-l crowd over on  
> the lehigh.edu server. I was playing winter field day with them and had a  
> blast. These guys are up to something all the time.

Yeah, I was trying to find them (local bunch) at a lake about 10 miles  
away, but never did find them. Grandma Hartley and Twinnie Triode  
were looking for them, dynamotories a'whirrin'.

> While we were up there I was able to work several EU stations on 40 and 80  
> using from 2 to 10 watts output power into a center fed zepp antenna. I even  
> heard some traffic on 500 KHz from a shore station signing VAU. Anyone know  
> who/where that is?

VAU is one of the Canadian stations, but dunno exactly where. VCS is in  
St Johns, VON is in Halifax, and VAU maybe near the St.Lawrence seaway  
area or up near Labrador, perhaps. I have a chart somewhere, but that  
is buried in the bilgewater.

> I also heard a ship on 600M sending a telegram from the  
> ship's master regarding harboring in a port in Alaska so I am assuming the  
> ship was in the Pacific somewhere. I never heard it give a callsign when he  
> signed off though.

Probably running traffic with KFS or KPH. Both are heard easily in the  
east coast on 600M. He may have been passing it through to the port

facilities up in Alaska.

> Also heard were several heterodynes from EU MW BC  
> stations, a Californian on 1630 and a couple of crazy TIS-type stations on  
> 1640 and 1680 telling me about all the arrival and departure terminals at  
> the DFW airport. I think conditions were good.

Conditions were pretty good even for ol' BA Bob, and I was surprised on the effectiveness of ol' Grandma Hartley, thrown together on plastic breadboards with junk box parts, an unknown 12v dynamotorie and bell wire. Twinnie Triode is a well-built lady, though, and works VERRRRY well. I was playing with the selectivity on her and was wondering why I could not slice the sideband off a fone signal..... was using the wrong style nogginfones..... tin cans were too broad to hear the selectivity rush zerobeat. After changing to HI-FI 600 ohm fones, I could hear the selectivity drop down to much less than 500 cycles, as it should do on a well built regen. Hint: Use tin cans that resonate as low in frequency as possible --- i.e., have Large tin diaphragms and are Heavy rather than light and small in the tin department.

> I also had another ham  
> (codeless tech) with me who is working on his code speed. He had fun too and  
> got on the ether and worked some novices on 80 meters until the sun came up.  
> If we joined in their parties with our glowbug stuff we could really impress  
> some folks and even make a few converts. From what I read those guys will  
> try any new thing that comes out in a kit anyway. I guess I need to brew up  
> a small portable rig for such events.

Well, that is why I was parading Grandma Hartley and Twinnie Triode. If it can be done with them running amok on the ether, it should be peanuts for newbies and 6V6/6L6 style thingies to follow along.

Great on the coding the folks. It is a real gas to get out there with almost nothing and make it play and really work! It makes real converts/believers out of them when they hear that, and actually make it work, themselves.

Ol' John Brewer had a first time ever qso with a ``new'' Conar 400 single tuber and tvrokko (original owner never wired it up right so it never worked). Worked great for John!

Kit, Schmidt..... Glowbugs are put together by rules de thumb and you read the schematic from the wiring layout. I guess an entry level 6L6 style kit thing could be done tho, with maybe 250vdc on the plate and a pinet output coupler with a series coil/cap coupler for coax or Hi-Low feeds. TV rockko and away you go!

Sounds like a weener (or a Glowebugge) to me.



> 73 all,  
> Conard WS4S

73/ZUT DE NA4G/Bob UP

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Date: Mon, 24 Feb 1997 21:09:46 GMT  
From: bry@mnsinc.com.NO\_SPAM (Brian Carling AF4K/G3XLQ)  
To: glowbugs@theporch.com  
Cc: tcltd@p-o.widomaker.com  
Subject: FWD: R-388/51J3 AF Distortion  
Message-ID: <199702250008.TAA04013@news2.mnsinc.com>

I wonder if anyone here can help this chap??  
(And maybe tell him about GB too!)  
Bry

On Sun, 23 Feb 1997 18:44:56 -0800, James M. Toney, Jr., inscribed eloquently:

From: "James M. Toney, Jr." <tcltd@p-o.widomaker.com>  
Newsgroups: rec.radio.amateur.boatanchors

|>I have a R-388 that severely distorts audio output when RF gain is turned  
|>up rather high, e.g., 7-10. has anyone had this problem, if so what was  
|>wrong and how fixed? TNX, Jim

All the best - from bry  
bry@mnsinc.com  
<http://www.mnsinc.com/bry/>  
<http://www.mnsinc.com/litlcaps.html>  
You MAY NOT use my email address for unsolicited Email!  
\*\*\* REMOVE ".NO\_SPAM" to reply \*\*\*

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Date: Mon, 24 Feb 1997 19:17:52 -0500  
From: "Steve, N2MNN" <n2mnn@openix.com>  
To: glowbugs@theporch.com  
Subject: Replacement relay needed  
Message-ID: <199702250017.TAA10824@pantera.openix.com>

Hello everyone,

This is my first post to the list. I hope the subject is appropriate. If not please tell me.

I am selling some Collins gear for the widow of one of my SK friends, W2GBT. Unfortunately the transceiver and amplifier were partially disassembled when I got to them. I found a 6 V relay on his workbench next to the KWM-2A that had the same pinout as the K2 relay in the rig. So I checked the K2 relay and found that it has an open in the coil. This relay was a 4C contact type rated at 115V DC, and 15,000 Ohms. The 6 V relay is only 270 Ohms. This relay is in series with 2 others so the overall resistance should probably not be messed with. I considered putting a resistor in series with the 6 V one but the activation line is 270 V on and 170 off. I think its better to just get an OEM relay. Pin out is similar to the one in Digikey Siemens Potter & Brumfield R10-E1X4-V2.5K (48V).

Do I have to buy a used relay, or does someone supply new ones to replace K2? I've never seen a 115V relay for sale.

Also, if someone can tell me the going individual prices for a KWM-2A, 516-F2 P.S., 312B-5 VFO-Wattmeter-phone patch, and a 30L1, all in pretty clean condition, it would help me get a good price for the widow. I've managed to get everthing but the amp hooked up and they seem to be all be working in receive. I will try transmit after I replace the relay.

Thanks,  
Steve, N2MNN

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End of GLOWBUGS Digest 456  
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